

Introduction

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INTRODUCTION

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This is an exciting time to be involved in neuropsychological rehabilitation (NR), and the production of this international handbook reflects the rapidly growing interest in and development of knowledge, new treatments and assessment procedures from around the world aimed at improving the lives of people with an acquired brain injury whether caused by an accident or by an illness, whether static or progressive. There has been a recent acceptance that no matter how impaired people with brain injury are, and whatever their particular problems might be, there are improvements to their lives and the lives of their families that can be made. This handbook reflects a rapidly growing expertise among therapists that is being stimulated by specialist academics in higher education and by their subsequent involvement in neuropsychological rehabilitation ‘at the coalface’. The contributions in this handbook are informed by rigorous research conducted by both academics and practitioners, sometimes working separately and sometimes working together; and by the clients themselves and their families. Indeed, an overriding principle in the work described and explained in this handbook is that rehabilitation after brain injury is at its most effective when researchers, practitioners, and clients and their families work together to find solutions to problems caused by an injury to the brain.

The work of a neuropsychologist, as is recognised in the contributions of the authors of chapters in this handbook, can involve specialist interaction with children or adults, with people who lack consciousness, with highly motivated clients having good insight, with people with poor insight, with those who sustained brain injury recently or those who sustained their injuries many years ago. All of these groups are addressed in this volume and may include people with disorders of consciousness, with dementia, with mental health difficulties, with epilepsy, stroke, traumatic brain injury (TBI), encephalitis, HIV, blast injuries, tumours and/or anoxic brain damage. The effects of Parkinson’s disease are also examined, as are those of Huntington’s disease and multiple sclerosis.

Assessment, treatment and research issues are discussed in depth as major cognitive functions are considered, including speed of information processing, attention, working memory, memory, executive functions, language, visual processing, praxis, social communication and social cognition. All discussions of these functions are informed by practical and professional work with families and with individuals. Tried and tested methods are evaluated as well as new and upcoming therapies.

Theoretical models and theories as well as practical applications are addressed in this volume. NR is a field that needs a broad theoretical base incorporating frameworks, theories and models from a number of different areas. No one model, theory or framework is sufficient to address the complex

problems facing people with difficulties resulting from damage to the brain. At the same time, real life problems must be addressed. The purpose of NR is to enable people with disabilities to achieve their optimum level of well-being, to reduce the impact of their problems on everyday life and to help them return to their own most appropriate environments. For many people, this is return to home but for those too impaired to go home, the most appropriate environment may be long-term care. Even here, however, we should be concerned with helping patients and clients to achieve their optimum well-being and reducing the impact of their problems on their everyday lives.

The contributors to this handbook range from world experts in their field to rising new stars. We have tried to make this book as comprehensive and as international as possible. It could be argued that a number of so-called 'International Handbooks' are not really international at all as they emanate from and thereby focus primarily on the work going on in the one country or continent from which the volume is conceived and developed. The four editors of this book are citizens of four different countries: the United Kingdom, the United States of America, The Netherlands and Australia. In all, contributors to the handbook come from 18 different countries, thus making it truly international and compiled in the expectation that it will become an important reference work for psychologists, occupational therapists, speech and language therapists, rehabilitation physicians and other rehabilitation professionals throughout the world.

One important group of people who need to be convinced of the value of rehabilitation are the health-care purchasers. A major problem facing those of us in rehabilitation is the cynicism with which our discipline is greeted by certain bureaucrats, which can be accompanied by an unwillingness to prioritise resources for survivors of any kind of insult to the brain. This is true in the high income countries where access to rehabilitation may be denied, it is true in the low income countries where there may be no rehabilitation services on offer, and it is true in the developing countries where there may be less than a handful of neuropsychologists for large populations. However, arguments are presented in this volume that although neuropsychological rehabilitation may appear initially to be expensive in the short term, it is often cost effective in the long term. People with brain injury who do not receive rehabilitation can ultimately become a much larger financial burden upon the state and on their families if rehabilitation funding is not provided. There is plenty of evidence, as we will see in these pages, that NR is clinically effective and that quality of life can be improved and family stress reduced as a result of neuropsychological interventions.

At one time it was thought that rehabilitation for people with dementia and other progressive conditions was not worthwhile in the face of deterioration, but this is no longer accepted in countries with positive attitudes towards rehabilitation and positive approaches in rehabilitation. Readers of this handbook will discover many examples of improved daily lives following on from rehabilitation. We may not be able to restore lost functioning but this does not mean that nothing can be done to reduce or moderate the actual problems faced by people with brain damage. On the contrary, they can be helped to cope with, bypass or compensate for their problems; they can learn how to come to terms with their condition and its effects through an understanding of their life circumstances; and their anxiety and distress can be reduced. NR is concerned with the amelioration of cognitive, emotional, psychosocial and behavioural deficits caused by an insult to the brain. Not only does such rehabilitation make life better for people with brain injury and their families, it also makes economic sense. As discussed by some of the contributors to this volume, the costs of *not* rehabilitating people with brain injury are considerable.

The handbook is structured in seven sections. The first section on general issues in NR looks at the development and history of NR together with evidence-based treatment, mechanisms of recovery, assessment and goal planning. Section Two is concerned with the different populations we encounter in our rehabilitation services: TBI, stroke, encephalitis, anoxic brain damage, epilepsy, dementia, multiple sclerosis, Parkinson's disease, Huntington's disease, brain tumours, HIV, blast injuries, schizophrenia, substance abuse and mood disorders. There is a chapter on people with

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disorders of consciousness and two chapters focusing on children with TBI and other neurological conditions. The third section addresses cognitive disorders, namely those of speed of information processing, attention, working memory, memory, executive functions, language, visual processing, and praxis. We also address acquired social communication disorders, social cognition deficits, difficulties with social and behavioural control and with apathy, and challenging behaviours. Again, the content covers both children and adults. Section Four focuses on the management of psychosocial problems with a focus on cognitive behavioural therapy, third wave therapies, self-awareness and identity issues, working with schools and with families for both children and adults, and vocational and occupational rehabilitation. The next section addresses recent and emerging approaches in NR and includes management of fatigue, sexuality, neurologic music therapy, novel forms of cognitive rehabilitation such as brain training, new technologies for cognitive impairments, and social robotics in dementia care. The sixth and penultimate section addresses the issue of rehabilitation with limited resources. The cost-effectiveness of NR is tackled, followed by a global perspective on NR when funds are short. Rehabilitation around the world with views from ten different countries conclude this section. The final section discusses evaluation and conclusions, looking at outcome measures, avoiding bias in evaluating NR, the challenges we face in measuring the effectiveness of NR and guidelines for good practice.

In summary, this handbook provides a comprehensive and contemporary perspective of NR around the world. The following chapters provide an integration of theory, research and practical applications of NR and cover a breadth of topics relevant to clinicians, researchers, educators, health-care administrators and policy makers. Major advances and cutting edge developments in the field are outlined and priority areas for future research and service development foreshadowed. To achieve its ultimate aim of improving the lives of people with neurological disorders and their families, the principles and practice of NR must keep pace with ongoing scientific discoveries, particularly in the cognitive and social neurosciences, and changes in the socio-cultural landscape of the world.

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